

REMARKS/ARGUMENTS

Claims 1-8 are pending in this application, and claim 1 is the only independent claim. Claim 1 has been amended to include substantially the same features of claim 3 which has been canceled. It is respectfully submitted that the amendments to claim 1 do not raise new issues, and entry of the amendments is requested.

The Rejection of the Claims

The Office Action finally rejects: (1) claims 1-3 and 6-8 under 35 U.S.C. §102(a) as being anticipated by U.S. Patent No. 5,784,022 to Kupfer (hereafter Kupfer); (2) claim 4 under 35 U.S.C. §103(a) as being unpatentable over Kupfer in view of U.S. Patent No. 5,270,724 to Ajioka (hereafter Ajioka); and (3) claim 5 under 35 U.S.C. §103(a) as being unpatentable over Kupfer in view of Ajioka and further in view of U.S. Patent No. 5,166,690 to Carlson et al. (hereafter Carlson).

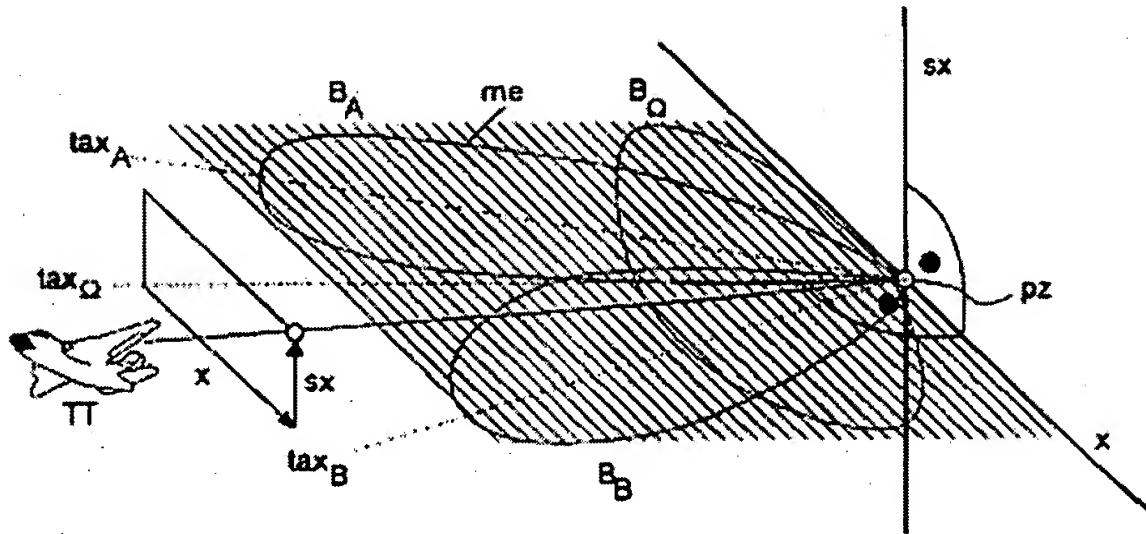
Amended Claims 1-2 and 6-8 Are Not Anticipated

Applicant respectfully submits that Fig. 5 of Kupfer fails to anticipate amended claim 1 which is the only independent claim. The Examiner has alleged that Fig. 5 of Kupfer discloses a system having "... antennas elements of the array antennas are connected to one another such that the distance between the phase centers is smaller than half the width of an individual array antenna." The Applicant respectfully submits that Fig. 5 of Kupfer discloses an antenna array for use in an **amplitude** monopulse process, and that Kupfer does not disclose antenna arrays having different **phase centers** that are placed at least a relatively close distance to each other which is smaller than the width of an individual array.

Kupfer clearly states, "Fig. 5 shows an array with three subantennas for the **amplitude monopulse process**". [Emphasis added], [See column 4, lines 3-4]. Moreover, Kupfer teaches that, "In the extended **amplitude monopulse process**, the subantennas A, B, and Ω should receive the beams within the measurement plane in different directions (squint beams, which have an angle difference only within the measurement plane), and **should have a common phase center** or an identical phase response." [Emphasis added], [See column 5, lines 6-11]. It is clear that the Kupfer patent teaches that the amplitude monopulse process of Fig. 5 should have antennas with a common phase center. This teaching is directly contrary to the claimed invention of independent claim 1 which includes antenna arrays having *different phase centers that are placed at least a close distance to each other*.

Fig. 6 of Kupfer also clearly indicates that the subantennas of Fig. 5 share a **common phase center** p_z , and that the phase centers are not placed at a close distance to each other, as claimed in independent claim 1. Kupfer states, "Fig. 6 shows the antenna beams of the antennas shown in Figs. 2 and 5." [See column 4, lines 5-6]. For the convenience of the Examiner, Fig. 6 is reproduced below:

Fig. 6



It is respectfully submitted that antenna arrays of Fig. 5, having the antenna beams of Fig. 6, share a common phase center p_z, and that *the different phase centers are not placed at least a close distance to each other* as required by independent claim 1. Moreover, it is respectfully submitted that the antennas of Fig. 5 cannot anticipate the Applicant's claimed invention, because there is no distance between the phase centers. Accordingly, the Examiner is respectfully requested to withdraw the rejection of claims 1-2 and 6-8 as being anticipated by Fig. 5 of Kupfer.

Dependent Claims 2, 4 and 5

It is respectfully submitted that dependent claims 4 and 5 are allowable for at least the same reasons as independent claim 1. Accordingly, withdrawal of the rejection of claims 4 and 5 under 35 U.S.C. §103(a) is respectfully requested.

Appl. No.: 09/700,926
Docket No.: 1807-0151P
Reply to Office Action of June 4, 2004

CONCLUSION

All objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance and such allowance is respectfully solicited. Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Richard J. McGrath (Reg. No. 29,195), to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By:

for

Terrell C. Birch
Reg. No. 19,382

(reg. # 40,417)

TCB/RJM/kmr
TCB/RJM/kmr
(703) 205-8000
1807-0151P

P.O. Box 747
Falls Church, VA 22040-0747
703-205-8000